

**METHODS FOR QUANTIFYING THE MORPHOLOGY AND AMPLITUDE OF
CARDIAC ACTION POTENTIAL ALTERNANS**

ABSTRACT OF THE DISCLOSURE

Methods and apparatus for determining T-wave alternan signatures (*i.e.*, morphology and polarity) derived from a physiologic signal representative of a subject's heart activity; assessing changes in the myocardium Action Potential ("AP") through analysis of the alternan signature derived from a physiologic signal representative of a subject's heart activity; and/or assessing spatial disassociation of alternan characteristics that are likely associated with the initiation of re-entrant arrhythmias.